

# Acute Calcific Tendinitis of the Longus Colli Muscle: A Clinical Mimic for Retropharyngeal Abscess

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## Abstract

*Acute Calcific Tendinitis of the Longus Colli muscle is a rare but important cause of acute, severe neck pain. It is a non-infective inflammatory condition that can often clinically mimic retropharyngeal abscess, neck trauma and oropharyngeal neoplasms. We present a case occurring in a 64 year old male presenting with severe neck pain and dysphagia. A computerised tomography scan to investigate these symptoms demonstrated calcification in the prevertebral space adjacent to C2 vertebral body. Non-steroidal anti-inflammatory drugs were used to successfully treat the patient's symptoms with a good response. Although uncommon, an awareness of this condition is key in preventing misdiagnosis, unnecessary over investigation and incorrect management.*

## INTRODUCTION

Acute calcific tendinitis of the Longus Colli muscle presents with severe neck pain and dysphagia. It is a rare cause of atraumatic neck pain and stiffness which is poorly recognised, often leading to misdiagnosis of more sinister aetiologies such as retropharyngeal abscess and oropharyngeal malignancy.

Retropharyngeal calcific tendinitis is an inflammatory response to the deposition of calcium hydroxyapatite crystals in the Longus Colli tendon within the prevertebral space.<sup>1</sup> This leads to symptoms of acute neck pain, dysphagia and/or odynophagia. Importantly, there is usually no evidence of pyrexia or systemic infection.

Here, we present a case occurring in a 64 year old male who was referred to our otolaryngology department. Since this diagnosis is rarely encountered by ENT clinicians, emphasis is placed on the presenting clinical features and radiological findings which assist in clinching the diagnosis.

## CASE REPORT

A 64 year old retired teacher presented with a two day history of sudden-onset severe throat and neck pain. He had no prior history of any similar symptoms or musculoskeletal problems and there was no history of preceding trauma, upper respiratory tract infection, excessive strain or physical exertion. His past medical history included hypertension and gout. He described persistent pain which had progressed to dysphagia with subsequent marked restriction in neck movements. He was a non-smoker and there was no history of excessive alcohol intake. Physical examination revealed a systemically well, afebrile patient with limited range of movement in the neck, especially on neck extension. There was no palpable cervical lymphadenopathy or neck swelling. There were no visible signs of oropharyngeal inflammation and the tonsils were grade 1 in size with a healthy appearance. Flexible nasopharyngolaryngoscopy revealed mild erythema and diffuse swelling of

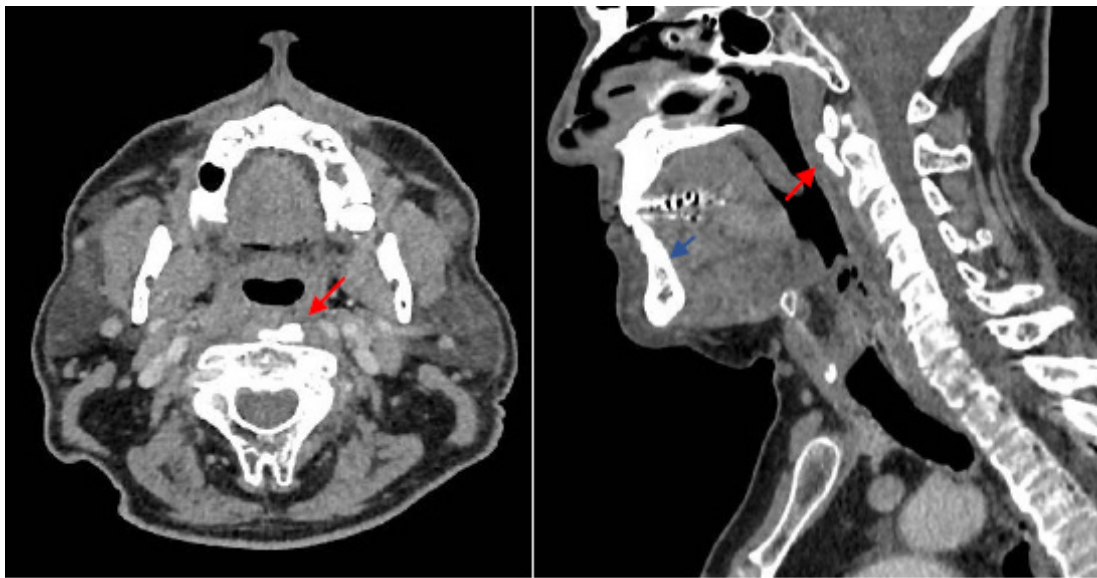
## Acute Calcific Tendinitis of the Longus Colli Muscle: A Clinical Mimic for Retropharyngeal Abscess

the posterior pharyngeal wall. There was no pus present and normal appearances of the supraglottic structures, glottis and hypopharynx were seen. Laboratory investigations revealed a normal white cell count of 9.90g/dl (reference range 4.0-11.0) and a mildly elevated C-reactive protein (CRP) level of 14mg/L (reference range 0-10). There were no other abnormal laboratory findings. A lateral soft tissue neck plain radiograph (Fig 1) showed loss of cervical spine lordosis and narrowing at C5/C6 joint space. The appearances were in keeping with

osteoarthritis. Calcification was also seen anterior to C2 vertebral body. A computerised tomography (CT) scan with intravenous contrast was performed to look for a retropharyngeal abscess. Cross-sectional imaging revealed calcification in the pre-vertebral space adjacent to C2 vertebral body within the Longus Colli muscles with likely reactive fluid within the retropharyngeal space (Figures 2a & 2b). The patient was treated with non-steroidal anti-inflammatory medications and showed a positive response within 24 hours of commencing treatment.



**Fig 1.** Lateral cervical spine X-Ray showing joint space narrowing and osteophyte formation at C5 and C6 in keeping with appearances of osteoarthritis. Foci of calcification can be seen anterior to C2 vertebral body (red arrow)



**Fig 2a & 2b.** Axial (left) and Sagittal (right) sections from CT scan showing calcification within the Longus Colli muscles (red arrows). A small amount of reactive fluid is seen within the retropharyngeal space (blue arrow).

### DISCUSSION

Anatomically, the Longus Colli muscles are paired bilateral structures lying anterior to the vertebral column. Their primary role is in flexion of the head and neck.

Acute calcific tendinitis of the Longus Colli muscles is a reactive and self-limiting condition in response to deposition of calcium hydroxyapatite crystals in the muscle tendons.<sup>2</sup> The aetiology of the condition is unclear and poorly understood. However it is generally self-limiting, lasting up to 2 weeks in duration. There is no clear ethnic or gender predisposition. The most common age group affected is those between 30-60 years but the condition has been reported in the age ranges 21-80 years<sup>3</sup>.

A case report and literature review by Park *et al* in 2010 analysing the treatment of 71 patients with retropharyngeal calcific tendinitis found that 75% of those studied presented with similar symptoms to those of a retropharyngeal abscess and the abnormalities seen on cervical plain radiograph were comparable for either pathologies.<sup>4</sup> It is generally considered that CT scanning is the first line imaging modality for differentiating between the two conditions radiologically.

Although this condition is usually widely recognised by radiologists and spinal surgeons, it is rarely encountered by ENT clinicians and hence, seldom included in the differential diagnoses for an adult patient presenting with acute neck pain, dysphagia and reduced range of neck movements. We hope our reported case will serve to improve awareness

of Longus Colli acute calcific tendinitis among ENT clinicians in particular. This will also assist in preventing unnecessary surgical intervention and inappropriate antibiotic administration.

### CONCLUSION

Acute calcific Longus Colli tendinitis is a rare, self limiting cause of acute neck pain and dysphagia. This case demonstrates the importance of considering some of the more rare aetiologies for neck pain in order to avoid over-investigating patients and subjecting them to unnecessary invasive treatments when a simple treatment solution is available.

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